

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application. Kindly cancel Claims 6 through 10 and 25. Kindly amend Claim 22 and add Claim 31 as follows.

LISTING OF CLAIMS

1. Withdrawn
2. Withdrawn
3. Withdrawn
4. Withdrawn
5. Withdrawn
6. Cancelled
7. Cancelled
8. Cancelled
9. Cancelled
10. Cancelled
11. Withdrawn
12. Withdrawn
13. Withdrawn
14. Withdrawn
15. Withdrawn
16. Withdrawn
17. Withdrawn
18. Withdrawn
19. Withdrawn

20. Withdrawn

21. Withdrawn

22. (Currently Amended) A device for controlling the thickness profile in the production of blown film, comprising a blown film extruder with a blow head;

a main cooling ring for supplying a main cooling gas stream, said main cooling ring comprises annular nozzles which are arranged in two different planes, said nozzles fixed in section or which can be adjusted to a fixed section;

an additional cooling ring arranged outside the main cooling ring, said additional cooling ring supplying separate additional cooling gas streams;

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a measuring and controlling device for controlling the thickness profile of the blown film, said measuring and controlling device measuring the film thickness at a film tube above a freezing zone across the circumference, and controlling the additional cooling gas streams as a function of the measured film thicknesses, the additional cooling ring arranged adjacent the blow head of the blown film extruder underneath the main cooling ring;

at least one blower arranged outside the additional cooling ring and a number of volume flow rate control elements and supply lines corresponding to the number of additional cooling gas streams coupled between said at least one blower and said additional cooling ring.

23. (Original) A device according to Claim 22, wherein the additional cooling ring comprises a one-piece segment disc with a substantially planar end face provided with cooling gas supply bores, said cooling gas supply bores are distributed around the outer circumference, radial grooves open at one end start from said bores and substantially extend as far as the inner circumference, said end face comprising the radial grooves sealingly resting against a substantially planar counter face of a cover part.

24. (Original) A device according to Claim 23, wherein the cover part with the planar counter face is formed directly by the main cooling ring against which the segment disc is bolted.

[5. Cancelled]

26. (Original) A device according to Claim 22, wherein a second additional cooling ring is arranged for supplying separate additional cooling gas streams inside the film tube and that outside said second additional cooling ring at least one blower is provided and a number of volume flow rate control elements and supply lines which corresponds to the number of said additional cooling gas streams are coupled between said blower and said second additional ring.

27. (Original) A device according to Claim 26, wherein supply lines leading to the additional cooling ring on the outside and supply lines leading to the second additional cooling ring on the inside of the film tube for additional cooling streams in corresponding circumferential positions form branch lines of lines containing a joint volume flow rate control element for said branch lines.

28. (Original) A device according to Claim 26, wherein the second additional cooling ring is arranged inside the film tube at the blow head of the blown film extruder in the plane of the additional cooling ring on the outside underneath the main cooling ring.

29. (Original) A device according to Claim 26, wherein the additional cooling ring on the inside comprises a one-piece segment disc with a substantially planar end face, air supply bores distributed on the inner circumference, radial grooves being open at one end

and substantially extending as far as the outer circumference, said end face with the radial grooves sealingly resting against a substantially planar counter face of a cover part.

30. (Original) A device according to Claim 29, wherein the cover part with the planar counter face is formed by an inner cooling device with at least one annular nozzle which is arranged inside the film tube.

31. (New) A device for controlling the thickness profile in the production of blown film, comprising a blown film extruder with a blow head;

a main cooling ring for supplying a main cooling gas stream;

an additional cooling ring arranged outside the main cooling ring, said additional cooling ring supplying separate additional cooling gas streams;

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a measuring and controlling device for controlling the thickness profile of the blown film, said measuring and controlling device measuring the film thickness at a film tube above a freezing zone across the circumference, and controlling the additional cooling gas streams as a function of the measured film thicknesses, the additional cooling ring arranged adjacent the blow head of the blown film extruder underneath the main cooling ring;

at least one blower arranged outside the additional cooling ring and a number of volume flow rate control elements and supply lines corresponding to the number of additional cooling gas streams coupled between said at least one blower and said additional cooling ring; and

second additional cooling ring is arranged for supplying separate additional cooling gas streams inside the film tube and that outside said second additional cooling ring at least one blower is provided and a number of volume flow rate control elements and supply lines which corresponds to the number of said additional cooling gas streams are coupled between said blower and said second additional ring.